## OCEANOGRAPHIC SERVICES, INC.

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National Aeronautics and Space Administration Goddard Space Flight Center Greenbelt, Maryland 20771

Subject: Bi-monthly Progress Report Number 2

## Gentlemen:

Oceanographic Services, Inc. is pleased to submit Progress Report Number 2, covering the period 2 December 1972 to 2 February 1973 under contract NAS5-21877.

- A. Title: Acquisition and Analysis of Coastal Ground-Truth Data for Correlation with ERTS-A Imagery.
- B. Principal Investigator: Dr. Richard C. Miller, GSFC ID PR533.
- C. Difficulties and Problems This Period: ERTS data slow in arriving.
- D. Accomplishments:
  - Work progressing satisfactorily on digital enhancement of the spectral intelligence in the MSS digital tapes.
  - 2. Based upon the extensive experience which OSI has acquired on the marine meteorological history of Monterey Bay and the Santa Barbara Channel areas, there is some justification to suspect that features which appear to be oceanic in origin in some imagery may be atmospheric phenomena.
- E. Significant Results:
  - 1. Examination of the digital image of Monterey Bay, California area indicates more resolution in all MSS bands than found in the film imagery. This inability to delineate subtle density variations at the dark end of the spectrum in the film imagery may be similar to those difficulties encountered by some investigators at the light end of the spectrum. It should be noted that because the digital image is large and only certain areas of the total image are enhanced at one time, the digital technique of presenting MSS imagery is complimentary with the supplied film imagery.

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(E73-10043) ACQUISITION AND ANALYSIS OF COASTAL GROUND TRUTH DATA FOR CORRELATION WITH ERTS-A IMAGERY Bimonthly Progress Report, 2 Dec. 1972 - 2 (Oceanographic Services, Inc.) 3 p HC \$3.00 CSCL 08C

- 2. Examination of selected film imagery of the Monterey Bay and Santa Barbara Channel areas raises more questions than can be answered at this time. Density variations over water areas could be of an oceanic or atmospheric origin, or both. The ground-truth acquisition phase of this project will clear up some of the apparent ambiguities, but probably not completely. A more thorough examination of meteorological parameters as outlined in our ERTS-B proposal is recommended.
- F. Projected Accomplishments:
  - 1. Continue to develop computer software required to utilize the full potential of the MSS.
  - 2. Correlate ground-truth with ERTS-1 and aerial imagery.
- G. Published Material Released This Period: None
- H. Additional Investigative Efforts: None recommended at this time.
- I. Changes in Standing Orders: None to date.
- J. Image Description Forms: None submitted prior to field effort.
- K. Data Request Forms: The following material was ordered retrospectively during this reporting period:

Date	Observer ID	Sensor Band	Product Format	Copies
30 Jan 73	1125-17560 1127-18073 1127-18080 1129-18181 1129-18183	M M M M	T T T T	1 Each 1 Each 1 Each 1 Each 1 Each
25 Jan 73	1075-18173 1111-18181 1109-18073	M M M	7 7 7	l Each l Each l Each
29 Dec 72	1075-18170 1091-18071 1072-18123 1108-18014 1108-18020 1109-18073 1111-18181 1072-18010 1074-18123	M M M M M M M	T T T T T T	l Each l Each l Each l Each l Each l Each l Each l Each l Each

L. Additional Funds Required: None

Sincerely,

OCEANGRAPHIC SERVICES, INC.

Richard C. Miller, PhD President

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